

REMARKS

Reconsideration and allowance of the subject application are respectfully requested. Claims 12-23 remain pending, claims 12, 14, and 15 being independent. In this reply, Applicants have amended claims 12, 15-17, 20, and 21.

Applicants appreciate the Examiner's indication that claim 14 is allowable. For at least reasons presented below, Applicants respectfully submit that all pending claims should be indicated as allowable.

Prior Art Rejections

1. Section 102 Rejection: Boyce

Claims 12, 13, 15-17, 20, and 21 stand rejected under 35 U.S.C. § 102 as allegedly being anticipated by Boyce (U.S. Patent 6,012,091). This rejection, insofar as it pertains to the presently pending claims, is respectfully traversed.

Independent claim 12 is directed to an image signal storage and reconstruction apparatus for receiving, storing, and reconstructing a coded image signal, which includes intra-frame coded image signals and inter-frame coded image signals, fed from an image signal transmitting apparatus for use in a communication environment in which errors are likely to occur. The apparatus of claim 12 comprises: a storage and reconstruction control unit, which outputs an intra-frame request signal directing, in accordance with a request for storage, the image signal transmitting apparatus to transmit an intra-frame coded image signal in which the entirety of an image is intra-frame coded, and also outputs a storage start signal for carrying out a storage starting operation; and a coded signal storage unit, which extracts, in accordance with the storage start signal, the information indicating the coding mode of the entirety of an image from the coded image signal transmitted from the image signal transmitting apparatus, and starts storing the coded image signal when it is detected that the input coded image is said intra-frame coded image signal in which the entirety of an image is intra-frame coded. The coded signal storage unit subsequently stores inter-frame coded image signals transmitted from said image signal transmitting apparatus, thereby storing an initial intra-frame coded image signal in which the entirety of an image is intra-frame coded

followed by inter-frame coded image signals for non-disturbed video reconstruction based on both intra-frame and inter-frame coded image signals.

In maintaining the rejection of claim 12, the Office Action (by reference to the July 12, 2005 Office Action) cites a controller 100 and a frame storage unit 320 (Fig. 4) of Boyce as allegedly corresponding to the storage and reconstruction control unit and coded signal storage unit of claim 12, respectively. As discussed in the Reply dated October 12, 2005, Boyce discloses a video coder used in a video telecommunication server environment, e.g., for use in video phone services. In the system of Boyce, as illustrated in Fig. 1, encoded video data is decoded and re-encoded in a format that allows a server 20 to provide fast forward capability in response to requests from the user's video decoder apparatus. See e.g., col. 6, lines 47-60. In the embodiment cited in the Office Action as being relevant to claim 12, this is achieved by providing intra-coded frames in response to a fast forward command. See e.g., col. 10, lines 1-4. As described in the Abstract, the system of Boyce realizes n times fast scan play back by reproducing only frame signals of intra-frame coded data in every n -th frame.

With respect to the language previously added to claim 12, emphasizing the coded signal storage unit function of "storing a coded image signal for non-disturbed video reconstruction," the Examiner concludes that Boyce satisfies this feature by disclosing that the process of decoding and re-encoding frames (via intra-frame coding) can continue for an entire video telecommunication sequence, thereby satisfying the language of claim 12. See e.g., Office Action page 3.

In an effort to further distinguish over Boyce, Applicants have amended claim 12 to emphasize that the coded signal storage unit starts storing the coded image signal when it is detected that the input coded image is an intra-frame coded image signal in which the entirety of an image is inter-frame coded, and subsequently stores inter-frame coded image signals transmitted from the image signal transmitting apparatus, thereby storing an initial intra-frame coded image signal in which the entirety of an image is intra-frame coded followed by inter-frame coded image signals for non-disturbed video reconstruction based on both intra-frame and inter-frame coded image signals. The re-encoding function of Boyce cited by the

Examiner merely provides intra-coded frames in response to a fast forward command, thereby failing to satisfy the language now recited in claim 12.

Independent claim 15 is directed to an image signal storage and reconstruction apparatus for receiving, storing, and reproducing a coded image signal, which includes intra-frame coded image signals and inter-frame coded image signals, for use in a communication environment in which errors are likely to occur. The apparatus of claim 15 comprises: a storage and reconstruction control unit, which transmits a reconstruction start signal directing the start of reconstruction of the coded image signal stored in a coded signal storage unit, in accordance with a request for reconstruction, and an image decoding unit, which extracts, in accordance with the reconstruction start signal, information indicating the coding mode of the entirety of an image from the coded image signal output from the coded signal storage unit, and starts reconstructing the coded image signal when it is detected that the input coding image is one in which the entirety of an image is intra-frame coded so as initially decode an intra-frame coded image signal in which the entirety of an image is intra-frame coded and subsequently decode inter-frame coded image signals for non-disturbed video reconstruction based on both intra-frame and inter-frame coded image signals.

As set forth on page 3 of the Office Action, the Examiner relies on the same reasoning applied to independent claim 12 to reject independent claim 15. As noted above, however, the system of Boyce realizes fast playback by re-encoding and reproducing only frame signals of intra-frame coded data in every n-th frame, and thus does not “initially decode an intra-frame coded image signal in which the entirety of an image is intra-frame coded and subsequently decode inter-frame coded image signals for non-disturbed video reconstruction based on both intra-frame and inter-frame coded image signals” as claimed.

According to MPEP § 2131, “a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.” *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the ... claims.” *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913 (Fed. Cir. 1989).

In view of the above, Applicants respectfully submit that Boyce fails to anticipate independent claim 12 or independent claim 15, or any claim depending therefrom.

In view of the above, Applicants respectfully request reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 102.

2. Section 103 Rejection: Boyce - Isu

Claims 18, 19, 22, and 23 stand rejected under 35 U.S.C. § 103 as allegedly being unpatentable over Boyce in view of Isu et al. (U.S. Patent 6,862,320). This rejection is respectfully traversed.

As set forth in the Office Action dated July 12, 2005, the Examiner relies on Isu as allegedly pertaining to incremental features of the above-identified dependent claims. Applicants submit, however, that this reliance on Isu fails to make up for the deficiencies discussed above with respect to Boyce. Consequently, Applicants respectfully request reconsideration and withdrawal of the Examiner's rejection under 35 U.S.C. § 103.

Conclusion

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact the undersigned at the telephone number below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

By 

D. Richard Anderson
Registration No.: 40,439
BIRCH, STEWART, KOLASCH & BIRCH, LLP
8110 Gatehouse Road
Suite 100 East
P.O. Box 747
Falls Church, Virginia 22040-0747
(703) 205-8000
Attorney for Applicant